

## CLASSIFICATION AND TAGGING RULES FOR SWITCHING NODES

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## ABSTRACT OF THE DISCLOSURE

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A VLAN classification and tagging system for a switching node. During VLAN classification, an inbound packet is assigned to a VLAN in accordance with a classification mode selectable from a PASS, FORCE, and PROTOCOL modes. In PASS mode, the packet is assigned to a VLAN associated with a VLAN ID from the packet. In FORCE mode, the packet is assigned to a VLAN associated with

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an ingress port. In PROTOCOL mode, the packet is assigned to a VLAN associated with a protocol type of the packet. During VLAN tagging, a VLAN identifier in an outbound packet is modified or not in accordance with a tagging mode selectable from a PASS, FORCE, and REMOVE modes. In PASS mode, the VLAN ID in the packet is retained as received. In FORCE mode, the VLAN ID in the packet is replaced with a VLAN ID to which the packet was classified at inbound. In REMOVE mode, the VLAN ID from the packet is removed without substitution.

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